

ABSTRACT OF THE DISCLOSURE

In an ultrasonic diagnostic apparatus capable of forming a three-dimensional ultrasonic image, an entire cavity portion of an organ can be displayed without any part being invisible. Three-dimensional ultrasonic image data obtained based on an ultrasonic wave transmitted and received with respect to an object organ is stored in a memory 20. With regard to the stored data, a brightness value of each voxel is binarized in a binarization processing section 24 using a predetermined threshold value. Then, the binarized brightness value is further inverted in a brightness value inverting section 26. Consequently, the cavity portion of the organ which has low brightness before inversion has high brightness, and the wall portion of the organ which has high brightness before inversion and which obstruct observation of the inner cavity portion has now low brightness. Thus, solid representation of the cavity portion to be observed can be obtained, thereby facilitating observation.